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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,447	11/27/2001	Chia-Tin Chung	13732.3US01	2203

23552 7590 08/05/2003

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EXAMINER

HARVEY, JAMES R

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/995,447

Applicant(s)

CHUNG ET AL

Examiner

James R. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5-20-03 (election/amendment).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Cancellations

- The cancellation of claims 11-14 has been made of record.

Election/Restrictions

- Applicant's election without traverse of Group II (Claims 1-10) in Paper No. 3 is acknowledged.

Priority

- Acknowledgement is made for priority claim, but no papers have been submitted under 35 U.S.C. 119(a)-(d).

Specification

- The disclosure is objected to because of the following informalities:
== The organic film has been assigned numeral 24 on line 2 of page 5, but the ribs has also been assigned that number on line 3 of page 5.
-- Appropriate correction is required.

Drawings

- == The organic film has been assigned numeral 24 on line 2 of page 5, but the ribs has also been assigned that number on line 3 of page 5..
- **Please note that drawing corrections will no longer be held in abeyance. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.**
- **If drawing correction are not submitted with the response to this office action, the response will be consider a Non-Responsive Reply and the following paragraph will apply:**

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The reply filed on (...) is not fully responsive to the prior Office Action because: (...) Since the period for reply set forth in the prior Office action has expired, this application will become abandoned unless applicant corrects the deficiency and obtains an extension of time under 37 CFR 1.136(a).

The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. In no case may an applicant reply outside the SIX (6) MONTH statutory period or obtain an extension for more than FIVE (5) MONTHS beyond the date for reply set forth in an Office action. A fully responsive reply must be timely filed to avoid abandonment of this application.

Claim Objections

- The following objections to the claims are noted below:
 - In reference to claim 1, line 3, the claim limitations require that the sealing structure be glued to the top of the "substrate" (applicant's element 20). However, the specification and the drawings only support the sealing structure being glued to the top of the OLED.
 - Appropriate correction of the above is required.

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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- Claim(s) 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Graff et al. (6573652).

-- In reference to claim 1, Applicant's Admitted Prior Art shows (figure 1)

a top-emission organic electro-luminescent display (OLED) that has a substrate 10 having at least an anode layer 12, an organic fluorescent film 14, at least a cathode layer 16, a barrier layer 17 and a protection layer 18;

However, Applicant's Admitted Prior Art does not show a transparent sealing structure glued to the top of the OLED.

Applicant's Admitted Prior Art also does not teach that the transparent sealing structure comprises an adhesion layer glued to the protection layer, a plurality of organic resin layers formed on the adhesion layer, a plurality of inorganic barrier layers disposed between the organic resin layers, a flexible polymer film formed on the organic resin layer, and a hard coat formed on the flexible polymer film.

Graff teaches (column 1, lines 60-65) a transparent sealing structure 260 that is designed to be glued (column 2, line 54 and (column 4, line 24)) on the top of the OLED 255 (column 1, line 21).

Graff also teaches that the particular elements that the transparent sealing structure comprises are

an adhesion layer glued (column 2, line 56, and (column 5, lines 32-36)) to the protection layer (column 2, line 52), a plurality (column 4, lines 30-40) and (column 6, line 53 and 54) of organic resin layers formed on the adhesion layer, a plurality of inorganic barrier layers disposed between the organic resin layers (column 6 lines 15-20), a flexible polymer film

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formed on the organic resin layer (column 7, lines 13-15 and (column 2, lines 35-40)), and a hard coat formed on the flexible polymer film 280 (figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the transparent sealing structure shown by Graff to improve Applicant's Admitted Prior Art because, as taught by Graff (column 1, lines 20-26), a sealed display device (e.g. OLED) is more reliable than a display device that is not sealed from oxygen and water vapor.

-- In reference to claim 2, Applicant's Admitted Prior Art shows (page 2, line 26, also see lines 27-34 and page 5, lines 1-10) the top-emission OLED is a passive matrix type.

-- In reference to claim 3, Applicant's Admitted Prior Art shows (page 2, line 26, also see lines 27-34 and page 5, lines 1-10) the top-emission OLED is a active matrix type.

-- In reference to claim 4, Applicant's Admitted Prior Art shows (page 2, lines 3-5) the cathode layer uses transparent conductive materials.

-- In reference to claim 5, Graff shows the barrier layer uses transparent (column 5, line 50) inorganic (column 5, lines 37-40 and (column 7, line 14)) materials.

-- In reference to claim 6, Graff shows the barrier layer is formed by plasma enhanced chemical vapor deposition (PECVD) (column 5, lines 10-13).

-- In reference to claim 7, Applicant's Admitted Prior Art shows the protection layer is transparent.

However, Applicant's Admitted Prior Art is silent as to the composition of the material being organic.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an organic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. In re Leshin, 125 USPQ 416 (CCPA 1960). One skilled in the art would be motivated to choose an organic material because it is less harmful to the environment.

-- In reference to claim 8, Graff shows (column 1, lines 36-40) the inorganic barrier layer of the sealing structure is made with SiO₂.

-- In reference to claim 9, Graff shows the barrier layer is formed by plasma enhanced chemical vapor deposition (PECVD) (column 5, lines 10-13).

-- In reference to claim 10, Graff shows the hard coat of the sealing structure is has anti-reflective coating (column 3, line 62).

Conclusion

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Effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address. Correspondence in patent related matters must now be addressed to:

**Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450**

For additional information regarding the new address, see Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

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- The prior art listed on PTO form 892 that is made of record and not relied upon is considered pertinent to applicant's disclosure because it shows the state of the art with respect to applicant's claimed invention.
- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 703-305-0958. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 703-308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 (OFFICAL/BEFORE FINAL) and 703-872-9319 (OFFICAL/AFTER FINAL).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

James R. Harvey, Examiner

jrh
July 25, 2003


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PRIMARY EXAMINER